

REMARKS

The Office Action dated September 8, 2003, has been carefully considered. In the Office Action, an indefiniteness rejection was advanced against claim 1 and various prior art rejections were advanced against all of the claims. By way of this amendment, independent claims 1 and 11 have been amended. Claims 1-20 remain in the patent application. Applicant respectfully requests reexamination and reconsideration of the rejections in view of the foregoing amendments and the following remarks.

First, the Patent Examiner noted the use of "the regulating piston assembly" in lines 11-12 of claim 1. Applicant has amended this for purposes of antecedent basis by changing the word "piston" to "valve". No material change in the claim has resulted by virtue of this amendment and removal of the § 112 rejection is thereby solicited.

Turning to the prior art rejections, the Patent Examiner has rejected claims 1-20 over Harwath et al. in view of Nakamura et al. The obviousness rejection is traversed and claim amendments are made to even further distinguish the asserted combination. The Patent Examiner has asserted that it would be obvious to include the oil regulating valve assembly that includes an electrically controlled solenoid as disclosed in Nakamura et al. into the mechanically controlled oil pump as disclosed in Harwath et al. which includes a diaphragm valve. There is no teaching or suggestion in the art to make this asserted combination. In particular, the Nakamura et al. reference discusses the possibility that fuel oil would be stopped upon failure of the electronic control (see e.g. abstract). In contrast, in the event of failure of the electronic control, and in particular, premature opening of the oil regulator by the solenoid, the diaphragm valve serves as a redundant backup to operate at startup to prevent premature output of oil. Thus, even upon failure (e.g. premature opening of the oil regulating valve) of the solenoid valve due to an internal flaw, or incorrect installation or other reason, premature delivery of oil to the burner is prevented by virtue of the diaphragm valve or bypass. Importantly, oil is still eventually delivered, but not stopped altogether as might be suggested according to the failure mode discussed by Nakamura et al. Therefore, the deficiencies of Harwath et al. are not cured and not disclosed or fairly taught by Nakamura et al. or any of the other prior art references of record. To make this distinction even clearer, language has been added to claim 1 to further differentiate the cited combination. The amended language is not fairly taught or disclosed in either of the two prior art references. Similar amendments are set forth to claim 11 as it relates to the electrical control and the operation of the valve bypass of that claim. Thus, the amendments to claim 11 are not fairly taught by the cited art.

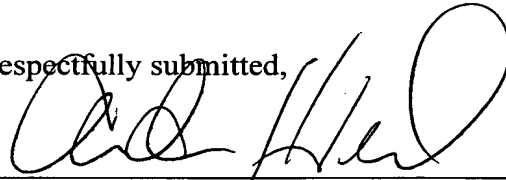
In re Appln. of Bill Mitchell et al.
Application No. 10/017,153

Support for this amendment is provided for in paragraph 35 of the application where it discusses the operation of the subject diaphragm valve in the event of failure of the solenoid valve to correctly operate at startup and/or being stuck open. As set forth in the specification, the prevention of premature oil delivery can eliminate or otherwise substantially reduce detrimental soot production at burner start up. Thus, the amendments to the claims truly focus in on the heart of the invention. The prior art of record merely speaks to the problem, not the solution provided by the present invention. Accordingly, it is respectfully submitted that if any rejection is made on the prior art of record, that rejection is being made with the improper use of hindsight and using Applicant's disclosure as a blueprint for making any asserted combination. In view of the foregoing remarks and amendments, Applicant respectfully requests that the obviousness rejections be withdrawn and that the Patent Examiner issue a Notice of Allowance.

Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



Andrew J. Heinisch, Reg. No. 43666
LEYDIG, VOIT & MAYER, LTD.
6815 Weaver Road, Suite 300
Rockford, Illinois 61114-8018
(815) 963-7661 (telephone)
(815) 963-7664 (facsimile)

Date: December 8, 2003